

Complications of MI

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Post-MI care involves a systematic approach to observation and treatment of secondary complications. Consider the DARTH VADER mnemonic to help keep it all straight.

Death

Arrhythmia is very common post MI and contributes to myocardial oxygen demand/ischemia. These patients need to be on cardiac monitoring and if an arrhythmia occurs, then get the pads on sooner than later in case it degenerates into a non-perfusing rhythm.

Rupture of ventricle classically occurs a few days out and is manifested by rapid decompensation. Ultrasound will show pericardial effusion and, likely, tamponade.

Tamponade can result from multiple etiologies including ventricle rupture, aortic dissection, and pericarditis. Look for Beck's triad: muffled heart sounds, JVD, hypotension. Do a bedside ultrasound to diagnose and treat with pericardiocentesis.

Heart failure with cardiogenic shock occurs in about 1/3 of post-MI patients. Treat with reperfusion, fluids, or and vasopressors (most commonly norepinephrine). Other treatments include dobutamine, milrinone, LVAD, or IABP.

Valve rupture – rapid decompensation + new murmur = emergency. Diagnose with bedside ultrasound + Doppler imaging. DDx includes intraventricular wall rupture.

Aneurysm of the ventricle post MI is a classic STEMI mimic. You may see big old q waves in an asymptomatic patient.

Dressler's Syndrome/pericarditis – tx NSAID/colchicine – check for tamponade w/ US

Embolism can occur in the ventricle +/- within aneurysm and these can shower downstream vasculature with emboli. Clearly, this is an indication for anticoagulation.

Recurrence of MI - unsurprisingly, MI is a risk factor for MI. These patients will have serious changes in medical management and lifestyle during subsequent hospitalization to help reduce this risk.